CLAIMS:

1. An apparatus for controlling the level of at least one quality of service (QoS) parameter of an electronic device, comprising:

a processor that, for said at least one QoS parameter executes a corresponding sequence of authentication instructions having at least one pre-set authentication information whenever said electronic device has entered a mode of operation selected from the group consisting of low-power mode, standby mode, and shut-down mode a predetermined number of times;

a memory coupled to said processor, said memory storing said sequence of authentication instructions and said at least one pre-set authentication information corresponding to said at least one QoS parameter,

wherein, said at least one sequence of authentication instructions accepts an externally input authentication information, validates said externally input authentication information using said stored at least one pre-set information and locks said at least one QoS parameter to an obviously non-operational level if the validation fails and unlocks said at least one QoS parameter to an operational level if said validation is successful.

2. The apparatus of claim 1, wherein said apparatus is packaged as one of the group consisting of microcomputer, digital signal processor (DSP), application-specific integrated circuit (ASIC), Programmable Logic Device (PLD), field programmable gate array (FPGA), and electronic subsystem.

3. A method for preventing theft and verifying ownership of an electronic device, comprising the steps of:

locking at a low level at least one quality of service (QoS) parameter of the electronic device;

accepting authentication information corresponding to the locked QoS parameter; and

unlocking the locked QoS parameter to an operational level when the accepted authentication information is validated against a pre-set authentication information,

wherein, the locking at a low level of the at least one QoS parameter results in the electronic device being obviously non-operational for at least one intended purpose of the electronic device thereby rendering the electronic device undesirable as a theft target, and wherein unlocking said at least one QoS parameter verifies ownership of the electronic device.

4. The method of claim 3, wherein said electronic device is a television set having a color display screen and said at least one QoS parameter is selected from the group consisting of color-depth, pixel resolution, and frame-rate of the display screen.

5. The method of claim 3, wherein said electronic device is a sound producing electronic device and said at least one QoS parameter is a quality of the produced sound.

6. The method of claim 5, wherein said sound producing electronic device is selected from the group consisting of stereo radio, stereo cassette player, stereo CD/DVD player, MP3-player, an audio player with a Hard Disk Drive, and a solid-state audio player.

7. The method of claim 3, wherein said electronic device is a modem and said at least one QoS parameter is selected from the group consisting of speed of transmission, bandwidth, number of channels, and signal-to-noise ratio.

8. The method of claim 3, wherein said locking step is performed when the electronic device enters a low-power level.

9. The method of claim 8, wherein said electronic device is a television set having a color display screen and said at least one QoS parameter is selected from the group consisting of color-depth, pixel resolution, and frame-rate of the display screen.

10. The method of claim 8, wherein said electronic device is a sound producing device selected from the group consisting of stereo radio, stereo cassette player, stereo CD/DVD player, MP3-player, an audio player with a Hard Disk Drive, or solid-state audio player and said at least one QoS parameter is quality of sound.

11. The method of claim 8, wherein said electronic device is a modem and said at least one QoS parameter is a speed of transmission, bandwidth, number of channels, and signal-to-noise ratio.

12. The method of claim 8, further comprising the steps of:

providing a control component that controls operation of said at least one QoS parameter, said control component being selected from the group consisting of microprocessor, digital signal processor (DSP) or application-specific integrated circuit (ASIC), programmable logic device (PLD), field programmable gate array (FPGA), wherein the provided control component is selected from the group consisting of an existing component of the electronic device and an additional control component;

specifying said at least one QoS parameter as at least one internal clock frequency of said control component; and

pre-storing in a non-volatile memory accessed by said control component, a pre-set authentication information corresponding to said specified at least one QoS parameter.

13. The method of claim 12, wherein said non-volatile memory is internal to said control component.

14. The method of claim 12, wherein said non-volatile memory is external to said control component.

15. The method of claim 12, wherein said pre-set authentication information is at least one pre-set authentication information corresponding to said at least one QoS parameter.

16. The method of claim 12, wherein said control component has an external frequency that cannot be driven up to render the electronic device operational for at least one intended function.

17. The method of claim 12, wherein said locking step further comprises the step of using at least one component selected from the group consisting of a phase-locked loop (PLL) and a clock divider to lower said at least one internal clock frequency.

18. The method of claim 12, wherein said control component is a graphics chip controlling a display screen and said QoS parameter is selected from the group consisting of color-depth, pixel resolution, and frame-rate of the display screen.

19. The method of claim 12, wherein said electronic device is a television set having a color display screen and said QoS parameter is selected from the group consisting of color-depth, pixel resolution, and frame-rate of the display screen.

20. The method of claim 12, wherein said electronic device is a sound producing device and said at least one QoS parameter is a quality of the produced sound.

21. The method of claim 20, wherein said sound producing electronic device is selected from the group consisting stereo radio, stereo cassette player, stereo CD/DVD player, MP3-player, an audio player with a Hard Disk Drive, or solid-state audio player.

22. The method of claim 12, wherein said electronic device is a modem and said at least one QoS parameter is a speed of transmission, bandwidth, number of channels, and signal-to-noise ratio.

23. The method of claim 3, further comprising the steps of:

providing a control component that controls operation of said at least one QoS parameter, said control component being selected from the group consisting of microprocessor, digital signal processor (DSP) or application-specific integrated circuit (ASIC), programmable logic device (PLD), field programmable gate array (FPGA), wherein the provided control component is selected from the group consisting of an existing component of the electronic device and an additional control component;

specifying said at least one QoS parameter is at least one internal clock frequency of said control component; and

pre-storing in a non-volatile memory said pre-set authentication information corresponding to said at least one QoS parameter internally to said control component.

24. The method of claim 23, wherein said pre-set authentication information is at least one pre-set authentication information corresponding to each at least one QoS parameter.

25. The method of claim 23, wherein said control component has an external frequency that cannot be turned-up to render the electronic device operational for at least one intended function.

26. The method of claim 23, wherein said locking step further comprises the step of using a component selected from the group consisting of a phase-locked loop (PLL) and a clock divider to lower said at least one internal clock frequency.

27. The method of claim 23, wherein said control component is a graphics chip controlling a display screen and said QoS parameter is selected from the group consisting of color-depth, pixel resolution, and frame-rate of the display screen.

28. The method of claim 23, wherein said electronic device is a television set having a color display and said QoS parameter is selected from the group consisting of color-depth, pixel resolution, and frame-rate of the display screen.

29. The method of claim 23, wherein said electronic device is a sound producing device and said at least one QoS parameter is a quality of the produced sound.

30. The method of claim 29, wherein said sound producing device is selected from the group consisting of stereo radio, stereo cassette player, stereo CD/DVD player, MP3-player, an audio player with a Hard Disk Drive, or solid-state audio player.

31. The method of claim 23, wherein said electronic device is a modem and said at least one QoS parameter is selected from the group consisting of speed of transmission, bandwidth, number of channels, and signal-to-noise ratio.